

## ABSTRACT

A monitoring method and apparatus for a component-based software system operating over one or more processing devices are provided according to the invention. The method includes the steps of initiating an invocation of a second software component from within an execution of a first software component. A stub start log data is recorded in an instrumented stub before the invocation of the second software component. A stub end log data is recorded in the instrumented stub after a response is received from the invocation of the second software component. The stub start log data and the stub end log data gather runtime information about execution of the second software component within the component-based software system. The monitoring is capable of gathering log data across a plurality of threads, across a plurality of processes, and across a plurality of processors. The log data may be retrieved and analyzed to produce timing latency information, shared resource usage information, application semantics information, and causality relationship information.